



CDEM Resilience Fund project application form

Application for CDEM Resilience Collaborative fund approval	
Project title	West Coast Tsunami Modelling & Risk Analysis
Date of application	Original submitted 28 th of February, 2018 AMENDED as of 14 NOVEMBER 2019
Details on application	
Lead local authority	West Coast Regional Council
CDEM Group	West Coast CDEM Group
Other local authorities or Groups supporting the proposal	Buller District Council Grey District Council Westland District Council
Project description	
Executive summary <i>[200 words maximum description.]</i>	
<p><i>Please note this is an adjusted proposal based on the outcome of the application submitted on February 2018 that resulted in receiving \$16,530 (excl GST), and the opportunity to receive a further \$85,000 (excl GST) to complete further components of the original proposal.</i></p> <p>The West Coast is made up of many small communities spread out along a relatively narrow coastal strip from Kahurangi Point in the north to Awarua Point in the south. A large portion of West Coast communities are in low lying coastal areas exposing them to potential tsunami risk. This project aims to identify at risk areas by updating the tsunami modelling to enable more accurate tsunami risk analysis for which the West Coast CDEM Group can use for tsunami response and recovery planning.</p> <p>Previously basic tsunami modelling was completed for the main coastal centres only. This current level of modelling does not take into account all available bathymetric and topographic data, or tsunami hydrodynamics such as source, and offshore and onshore tsunami propagation for all coastal communities on the West Coast.</p> <p>The project objective is to upgrade the current tsunami modelling within the main centres from basic level 2 (MCDEM, 2008) to preferred level 3 modelling with multiple source scenarios and tsunami sensitivity analysis.</p> <p>This project meets many of the goals of the National CDEM Strategy and the West Coast CDEM Group Plan. Outcomes of this project will improve resilience and preparedness of the coastal communities of this region.</p>	
Problem/opportunity <i>[200 words maximum description.]</i>	
<p>Although the West Coast is not directly exposed to the Pacific Ocean, paleo-tsunami evidence still suggests that tsunamis are a hazard that the West Coast needs to take seriously as the majority of the population is location in low-lying coastal regions.</p> <p>The current tsunami modelling is only at a basic level 2 under the MCDEM guidelines for some of the main centres on the West Coast and is therefore not at an acceptable level to complete tsunami response planning or public education.</p> <p>This project is the minimum recommended tsunami inundation risk study for the West Coast to enable tsunami response planning and public education.</p> <p>It will encompass the source modelling of several distant, regional and local potential tsunami</p>	

sources. GNS will complete tsunami source and propagation modelling for the main centres of the West Coast through to hydrodynamic inundation modelling in built up locations of Westport, Greymouth and Hokitika.

Alignment with identified goals and objectives *[200 words maximum description.]*

This application aligns with many of the National CDEM Objectives including:

- Goal 1 – Readiness:
 - 1a - Increasing the level of community awareness and understanding of the risks from hazards.
 - 1b - Improving individual, community and business preparedness.
 - 1d - Encouraging and enabling wider community participation in hazard risk management decisions.
- Goal 2 – Reduction:
 - 2b - Developing a comprehensive understanding of New Zealand's hazardscape.
- Goal 3 – Response:
 - 3b, c, d & e – Enhancing the ability of CDEM Groups, emergency services, lifeline utilities and government agencies to prepare for and manage civil defence emergencies.
- Goal 4 – Recovery:
 - Assisting the CDEM Group and other key stakeholders to plan for and manage recovery, this will assist with operational aspects of recovery management, such as pre-emergency operational planning, emergency-specific recovery planning, roles and responsibilities during recovery.

This work will also address Objectives and the Actions set in the West Coast CDEM Group Plan:

- Building on the review of existing information on the risk and impacts to West Coast Communities from tsunami;
- Assist with identifying 'at risk' communities and helping them to plan their response in the development and review of Community Response Plans; and
- Will assist with developing the Tsunami Response Plan.

Dissemination of benefits to sector *[200 words maximum description.]*

There has been a substantial amount of tsunami inundation modelling already undertaken elsewhere around New Zealand. This project will provide information for the West Coast that is consistent with that developed elsewhere. This will be shared with the Ministry of Civil Defence and Emergency Management through an online tsunami viewer.

Project design		
Project manager	Revised to Claire Brown	
Other project members	Jolene Paterson	
External providers/contractors	GNA	
Deliverables		
Milestone	Date for completion	Cost
1. Level 3 tsunami modelling & reporting for Hokitika, Greymouth and Westport (GNS)	31 st June, 2020	\$85,000 (excl GST)
Identified risks		
Risk	Suggested management	

That the full amount of funding requested will not be granted.	This project has been estimated by GNS to cover the entire region but with more detailed modelling around the main centres. Should the full amount not be funded then the tsunami sensitivity analysis as well as the area modelled will have to be reduced. This proposal is already at the minimum recommended level by tsunami experts and a reduction in the funding will reduce the confidence in the tsunami risk analysis for the West Coast.
That the funding request is not granted at all.	Currently there is only a basic level of tsunami modelling for the main centres which is not at an acceptable level for tsunami response planning or public education purposes.
Funding request and use	
CDEM resilience fund contribution	\$85.000 (excl GST)
Local authority contribution	Data collection and project management
Other sources of funding	NA
Expenditure <i>[Please supply details]</i>	\$85,000 (excl GST)
Application confirmation	
Approval of Chief Executive	
CDEM Group comment	
Comment	Original Proposal submitted in February 2018 was approved by Michael Meehan (Chief Executive, West Coast Regional Council and Chair of the Coordinating Executive Group).
Approval of Coordinating Executive Group Chair	